## Zala-Drava-Sava Basins, Assessment Unit 40480201 Assessment Results Summary

[MMBO, million barrels of oil. BCFG, billion cubic feet of gas. MMBNGL, million barrels of natural gas liquids. MFS, minimum field size assessed (MMBO or BCFG). Prob., probability (including both geologic and accessibility probabilities) of at least one field equal to or greater than the MFS. Results shown are fully risked estimates. For gas fields, all liquids are included under the NGL (natural gas liquids) category. F95 represents a 95 percent chance of at least the amount tabulated. Other fractiles are defined similarly. Fractiles are additive under the assumption of perfect positive correlation. Shading indicates not applicable]

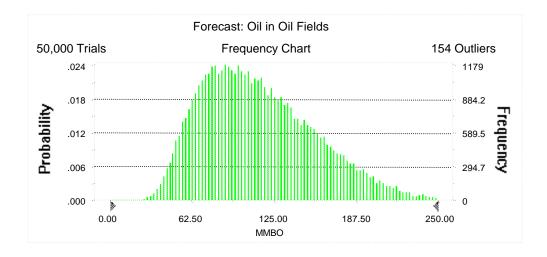
Field						_	Uı	ndiscovere	d Resourc	es					Lar	gest Undis	covered Fie	eld
Type	MFS	Prob.		Oil (M	MBO)		_	Gas (E	BCFG)			NGL (MI	MBNGL)			(MMBO o	r BCFG)	
1,700		(0-1)	F95	F50	F5	Mean	F95	F50	F5	Mean	F95	F50	F5	Mean	F95	F50	F5	Mean
Oil Fields	1		54	108	194	114	45	108	241	121	2	4	10	5	8	15	36	18
Gas Fields		1.00	04	100	104	114	500	970	1,759	1,030	12	28	59	31	66	144	356	_
Total		1.00	54	108	194	114	545	1,078	2,000	1,151	14	32	69	36		•		•

#### Forecast: Oil in Oil Fields

#### Summary:

Display range is from 0.00 to 250.00 MMBO Entire range is from 24.12 to 323.31 MMBO After 50,000 trials, the standard error of the mean is 0.19

Statistics:	<u>Value</u>
Trials	50000
Mean	114.23
Median	108.39
Mode	
Standard Deviation	43.25
Variance	1,870.33
Skewness	0.61
Kurtosis	3.02
Coefficient of Variability	0.38
Range Minimum	24.12
Range Maximum	323.31
Range Width	299.19
Mean Standard Error	0.19



Forecast: Oil in Oil Fields (cont'd)

#### Percentiles:

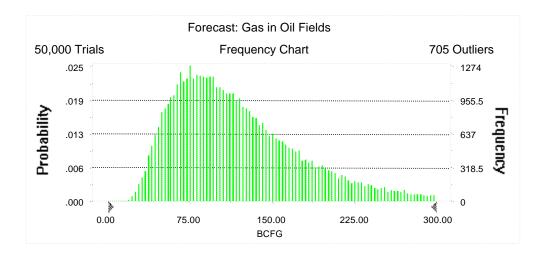
Danaa	MMDO
<u>Percentile</u>	<u>MMBO</u>
100%	24.12
95%	54.15
90%	62.78
85%	69.47
80%	75.32
75%	80.77
70%	86.32
65%	91.66
60%	97.21
55%	102.69
50%	108.39
45%	114.37
40%	120.47
35%	127.14
30%	134.24
25%	142.17
20%	151.25
15%	161.53
10%	174.55
5%	193.66
0%	323.31

#### Forecast: Gas in Oil Fields

#### Summary:

Display range is from 0.00 to 300.00 BCFG Entire range is from 16.21 to 571.19 BCFG After 50,000 trials, the standard error of the mean is 0.27

Statistics:	<u>Value</u>
Trials	50000
Mean	120.59
Median	107.81
Mode	
Standard Deviation	61.45
Variance	3,776.21
Skewness	1.17
Kurtosis	4.70
Coefficient of Variability	0.51
Range Minimum	16.21
Range Maximum	571.19
Range Width	554.98
Mean Standard Error	0.27



# Forecast: Gas in Oil Fields (cont'd)

#### Percentiles:

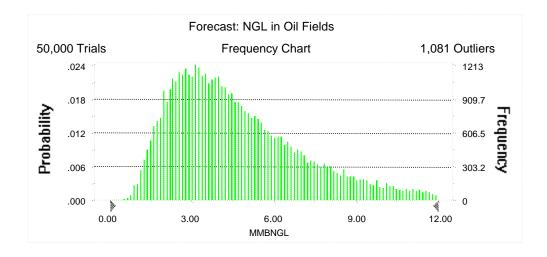
<u>Percentile</u>	<u>BCFG</u>
100%	16.21
95%	45.35
90%	54.49
85%	62.28
80%	68.87
75%	75.35
70%	81.54
65%	87.82
60%	94.16
55%	100.77
50%	107.81
45%	115.09
40%	122.91
35%	131.35
30%	141.14
25%	152.38
20%	165.59
15%	182.19
10%	204.29
5%	240.60
0%	571.19

#### Forecast: NGL in Oil Fields

#### Summary:

Display range is from 0.00 to 12.00 MMBNGL Entire range is from 0.53 to 24.29 MMBNGL After 50,000 trials, the standard error of the mean is 0.01

Statistics:	<u>Value</u>
Trials	50000
Mean	4.83
Median	4.21
Mode	
Standard Deviation	2.71
Variance	7.35
Skewness	1.38
Kurtosis	5.71
Coefficient of Variability	0.56
Range Minimum	0.53
Range Maximum	24.29
Range Width	23.76
Mean Standard Error	0.01



Forecast: NGL in Oil Fields (cont'd)

# Percentiles:

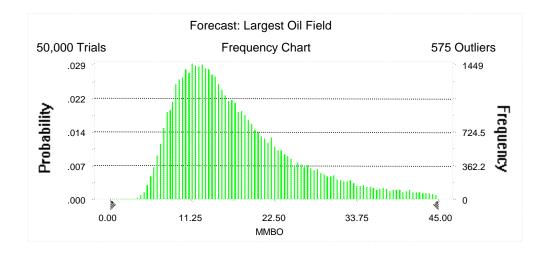
<u>Percentile</u>	MMBNGL
100%	0.53
95%	1.65
90%	2.02
85%	2.34
80%	2.61
75%	2.87
70%	3.13
65%	3.39
60%	3.66
55%	3.93
50%	4.21
45%	4.52
40%	4.86
35%	5.24
30%	5.65
25%	6.15
20%	6.72
15%	7.46
10%	8.49
5%	10.13
0%	24.29

# Forecast: Largest Oil Field

#### Summary:

Display range is from 0.00 to 45.00 MMBO Entire range is from 3.42 to 50.00 MMBO After 50,000 trials, the standard error of the mean is 0.04

Statistics:	<u>Value</u>
Trials	50000
Mean	17.60
Median	15.43
Mode	
Standard Deviation	8.65
Variance	74.76
Skewness	1.22
Kurtosis	4.35
Coefficient of Variability	0.49
Range Minimum	3.42
Range Maximum	50.00
Range Width	46.58
Mean Standard Error	0.04



# Forecast: Largest Oil Field (cont'd)

#### Percentiles:

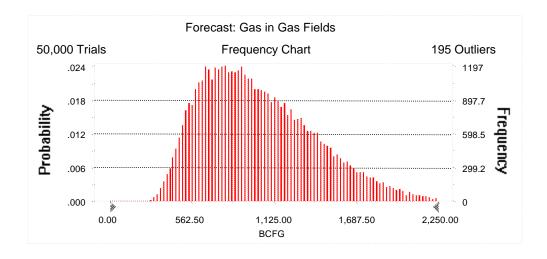
<u>Percentile</u>	MMBC
100%	3.42
95%	7.53
90%	8.73
85%	9.67
80%	10.52
75%	11.32
70%	12.12
65%	12.90
60%	13.71
55%	14.53
50%	15.43
45%	16.44
40%	17.51
35%	18.70
30%	20.08
25%	21.71
20%	23.67
15%	26.26
10%	29.79
5%	35.63
0%	50.00

#### Forecast: Gas in Gas Fields

#### Summary:

Display range is from 0.00 to 2,250.00 BCFG Entire range is from 227.34 to 2,988.76 BCFG After 50,000 trials, the standard error of the mean is 1.75

Statistics:	<u>Value</u>
Trials	50000
Mean	1,030.17
Median	970.05
Mode	
Standard Deviation	391.94
Variance	153,617.45
Skewness	0.69
Kurtosis	3.18
Coefficient of Variability	0.38
Range Minimum	227.34
Range Maximum	2,988.76
Range Width	2,761.41
Mean Standard Error	1.75



# Forecast: Gas in Gas Fields (cont'd)

#### Percentiles:

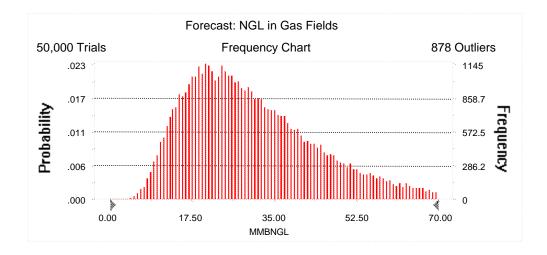
<u>Percentile</u>	<u>BCFG</u>
100%	227.34
95%	499.70
90%	570.43
85%	626.79
80%	677.29
75%	727.51
70%	774.82
65%	822.24
60%	871.09
55%	919.75
50%	970.05
45%	1,025.50
40%	1,081.73
35%	1,143.64
30%	1,207.76
25%	1,280.60
20%	1,360.21
15%	1,453.88
10%	1,575.79
5%	1,759.01
0%	2,988.76

#### Forecast: NGL in Gas Fields

#### Summary:

Display range is from 0.00 to 70.00 MMBNGL Entire range is from 3.54 to 127.34 MMBNGL After 50,000 trials, the standard error of the mean is 0.07

Statistics:	<u>Value</u>
Trials	50000
Mean	30.87
Median	28.07
Mode	
Standard Deviation	14.80
Variance	218.99
Skewness	1.01
Kurtosis	4.19
Coefficient of Variability	0.48
Range Minimum	3.54
Range Maximum	127.34
Range Width	123.79
Mean Standard Error	0.07



Forecast: NGL in Gas Fields (cont'd)

#### Percentiles:

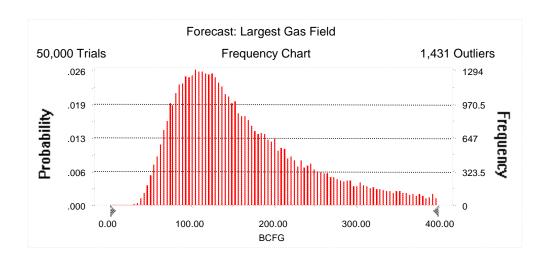
<u>Percentile</u>	<u>MMBNGL</u>
100%	3.54
95%	12.00
90%	14.44
85%	16.44
80%	18.22
75%	19.85
70%	21.41
65%	23.06
60%	24.68
55%	26.31
50%	28.07
45%	29.95
40%	31.92
35%	34.07
30%	36.43
25%	39.05
20%	42.22
15%	46.04
10%	51.25
5%	59.33
0%	127.34

# Forecast: Largest Gas Field

#### Summary:

Display range is from 0.00 to 400.00 BCFG Entire range is from 25.65 to 499.92 BCFG After 50,000 trials, the standard error of the mean is 0.40

Statistics:	<u>Value</u>
Trials	50000
Mean	167.85
Median	144.28
Mode	
Standard Deviation	89.16
Variance	7,949.75
Skewness	1.25
Kurtosis	4.36
Coefficient of Variability	0.53
Range Minimum	25.65
Range Maximum	499.92
Range Width	474.27
Mean Standard Error	0.40



# Forecast: Largest Gas Field (cont'd)

# Percentiles:

<u>Percentile</u>	BCFG
100%	25.65
95%	66.02
90%	77.47
85%	86.93
80%	95.25
75%	103.35
70%	111.16
65%	118.95
60%	126.96
55%	135.21
50%	144.28
45%	154.16
40%	165.37
35%	178.01
30%	192.44
25%	209.27
20%	230.55
15%	257.41
10%	294.86
5%	355.82
0%	499.92

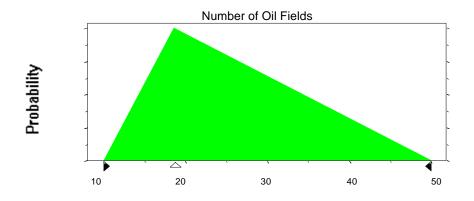
### **Assumptions**

#### **Assumption: Number of Oil Fields**

Triangular	distribution	with	parameters:

Minimum	10
Likeliest	19
Maximum	50

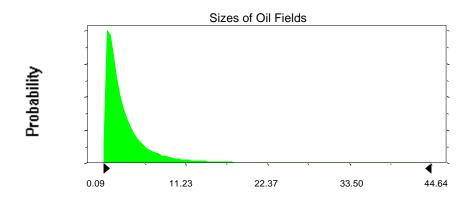
Selected range is from 10 to 50 Mean value in simulation was 26



# **Assumption: Sizes of Oil Fields**

Lognormal distribution with parameters:		Shifted parameters	
Mean	3.42		4.42
Standard Deviation	4.74		4.74
Selected range is from 0.00 to 49.00		1.00 to	50.00
Mean value in simulation was 3 37			4 37

# Assumption: Sizes of Oil Fields (cont'd)

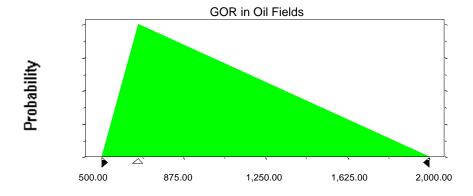


### Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	500.00
Likeliest	666.67
Maximum	2,000.00

Selected range is from 500.00 to 2,000.00 Mean value in simulation was 1,054.99

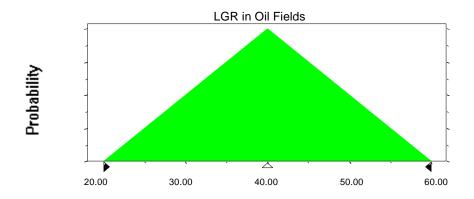


#### Assumption: LGR in Oil Fields

Triangular distribution with parameters:

Minimum	20.00
Likeliest	40.00
Maximum	60.00

Selected range is from 20.00 to 60.00 Mean value in simulation was 40.05



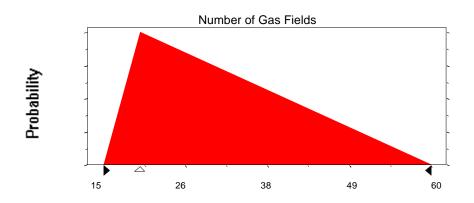
# **Assumption: Number of Gas Fields**

Triangular distribution with parameters:

Minimum	15
Likeliest	20
Maximum	60

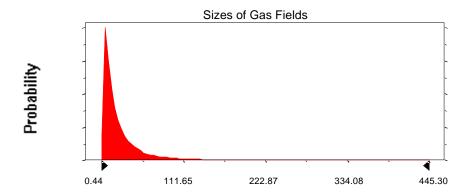
Selected range is from 15 to 60 Mean value in simulation was 32

# Assumption: Number of Gas Fields (cont'd)



# **Assumption: Sizes of Gas Fields**

Lognormal distribution with parameters:		Shifted parameters	
Mean	27.22		33.22
Standard Deviation	45.39		45.39
Selected range is from 0.00 to 494.00		6.00 to	500.00
Mean value in simulation was 26.69			32.69

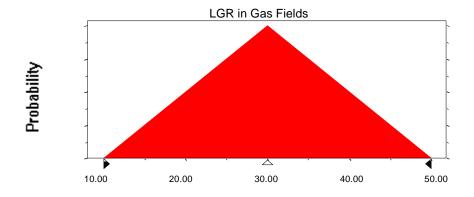


# Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	10.00
Likeliest	30.00
Maximum	50.00

Selected range is from 10.00 to 50.00 Mean value in simulation was 29.98



# End of Assumptions

Simulation started on 6/1/99 at 16:59:10 Simulation stopped on 6/1/99 at 17:28:16